



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/986,115	11/07/2001	Andreas Buos	085874-0381	4653

22428 7590 10/22/2004

FOLEY AND LARDNER
SUITE 500
3000 K STREET NW
WASHINGTON, DC 20007

EXAMINER

DABNEY, PHYLESHA LARVINIA

ART UNIT	PAPER NUMBER
----------	--------------

2643

DATE MAILED: 10/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/986,115

Applicant(s)

BUOS ET AL.

Examiner

Phylesha L Dabney

Art Unit

2643

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 14-16 and 18-45 is/are rejected.
- 7) ☐ Claim(s) 10-13 and 17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2643

DETAILED ACTION

Applicant's request for reconsideration of the finality of the rejection of the last Office action filed 27 August 2004 has been fully considered and persuasive with respect to the rejection(s) of independent claim(s) 1, 31, and 38, and therefore, the finality of that action is withdrawn.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 6, 9, 14-15, 18, and 23-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamada et al (GB 2-027-316 A).

Regarding claims 1-4, 6, 9, 14-15, 18, and 23-27, Yamada teaches an inertial exciter for an acoustic radiator, the exciter comprising: a massive member (9-11); a coupler (2, 4; fig. 6: 2, 3) adapted for attachment to the acoustic radiator (page 3, column 2 lines 67-75) and adapted for relative movement with respect to the massive member; a motor (massive member plus voice coil assembly, 15-16) for effecting the relative movement of the coupler and the massive member; and a suspension (6) for supporting the massive member relative to the coupler; wherein the suspension acts in a plane *generally* passing through the center of mass of the massive member, thereby reducing any moment acting on the suspension.

Art Unit: 2643

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims **5, 7-8, 16, 19-22, and 28-45** are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada et al.

Regarding claims **5, 7, 8, and 16**, Yamada teaches the spider formed of elastic/polymeric material instead of corrugated foil of metal or an arm type cantilever. However, the examiner takes official notice that it is known to construct spiders of various materials and structures including corrugated, with arms, metal, cloth, and/or polymeric material for beneficial affecting the frequency response.

Regarding claims **19, 31-32, and 37-41**, Yamada teaches an exciter (figs. 1-45) attached to the base plate (3, 5) in a repeatedly engageable manner (18, screw holes). Yamada does not specifically teach a means for attaching the base plate to an acoustic radiator as being of any means of attaching, including non-repeatedly engageable manner. However, since Yamada allow the base plat (3, 5) to be attached to the radiator directly or indirectly (page 3 column 2 lines 67-70) and it is known to use attachment means, such as adhesive glues, to secure exciters to base plates to minimize distortion from movement, then it would have been obvious to one of ordinary skill in the art at the time the invention was made to use any means including non-repeatedly engageable adhesive glue to secure the base plate to the radiator of Yamada for the reason stated above.

Art Unit: 2643

Regarding claims **20-21, 28-29, 33-34, and 42-43**, Yamada teaches the exciter is engageable with the base plate via a threaded connection (18, screw hole).

Regarding claims **22, 30, 35-36, and 44-45**, Yamada does not teach including a locking device for locking the connection. However, the examiner takes official notice that it is known to use a screw nut on the end of a screw for tightening and securely joining components together. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a locking device, such as a screw nut, on the screw securely joining components and preventing distortion.

Allowable Subject Matter

Claims 10-13, and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phylesha L Dabney whose telephone number is 703-306-5415. The examiner can normally be reached on Mondays, Tuesdays, Wednesdays, Fridays 8:30-4 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz can be reached on 703-305-4708. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2643

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

October 12, 2004

PLD


CURTIS KUNTZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600